

LISTING OF CLAIMS

Please amend the claims of the present application as set forth below. More specifically, a detailed listing of all claims is provided below. This listing of claims will replace all prior versions and listings of claims in the application. Changes to the claims are shown by strikethrough or double brackets (for deleted matter) and underlining (for added matter).

By way of overview, claims 1, 2, 4-15, 17-19, 30-34, 37 and 38 are currently pending. The current status of all of the claims is identified as follows:

- a) Claims 8-10, 12, 13, 15, 18, 31, 32, and 34 are original;
- b) Claims 1, 2, 4-7, 11, 14, 17, 19, 30, and 33 were previously presented;
- c) Claims 37 and 38 are new; and
- c) Claims 3, 16, 20-29, 35, and 36 are canceled without prejudice or disclaimer.

Listing of Claims

1. (Previously presented) A method comprising:
accessing a computer program;
automatically identifying a set of one or more attributes of the computer program with values that are to be input to the computer program by a user; and
creating code for one or more forms including selected ones of the set of one or more attributes.

2. (Previously presented) A method as recited in claim 1, further comprising generating a list including the set of one or more attributes and outputting the list.

3. (Canceled)

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2 4. (Previously presented) A method as recited in claim 1, wherein the one or more
3 forms comprises one or more HyperText Markup Language (HTML) pages.

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5 5. (Previously presented) A method as recited in claim 1, wherein the one or more
6 forms comprises one or more eXtensible Markup Language (XML) pages.

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8 6. (Previously presented) A method as recited in claim 1, wherein creating the one
9 or more forms comprises generating a form definition for each form by:

10 identifying the selected one or more attributes to include on the form;

11 creating a data input field for the form definition via which a user can
12 subsequently input a value for the attribute; and

13 creating a submit tag for the form definition via which the user can subsequently
14 input a request to submit the values on the form to the computer program.

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16 7. (Previously presented) A method as recited in claim 1, wherein the computer
17 program includes a plurality of interactions that each include one or more command
18 definitions and one or more view definitions, wherein each command definition defines a
19 command having various attributes and a behavior, wherein each view definition defines
20 a view that is a response to a request, and wherein the creating comprises creating one
21 form for each of the plurality of interactions.

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23 8. (Original) A method as recited in claim 1, further comprising:

24 identifying a set of one or more outputs of the computer program; and

25 outputting the set of one or more outputs.

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2 9. (Original) A method as recited in claim 8, wherein outputting the set of one or
3 more outputs comprises generating a list including the set of one or more outputs and
4 outputting the list.

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6 10. (Original) A method as recited in claim 8, wherein outputting the set of one or
7 more outputs comprises creating one or more forms including selected ones of the set of
8 one or more outputs.

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10 11. (Previously presented) A method comprising:
11 accessing a computer program, wherein the computer program includes a plurality
12 of interactions that each include one or more command definitions and one or more view
13 definitions, wherein each command definition defines a command having various
14 attributes and a behavior, and wherein each view definition defines a view that is a
15 response to a request; and

16 automatically identifying a set of one or more attributes of the computer program
17 with values that are to be input to the computer program by a user wherein the
18 automatically identifying comprises,

19 identifying, for each of the command definitions of each of the plurality of
20 interactions, the methods of the command definition,

21 checking, for each identified method that sets a value, whether a corresponding
22 identified method obtains the value, and

23 identifying, as an attribute of the set of one or more attributes, each attribute
24 corresponding to a method that sets a value for the attribute for which there is no
25 corresponding identified method that obtains the value for the attribute; and

1 outputting an identification of the set of one or more attributes.
2

3 12. (Original) A method as recited in claim 11, wherein identifying the methods
4 of the command definition comprises querying the command definition to cause the
5 command definition to identify its own methods.
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7 13. (Original) A method as recited in claim 11, further comprising identifying one
8 or more additional attributes that are not obtained by the computer program from
9 elsewhere and that cannot be input by the user.
10

11 14. (Previously presented) A method comprising:

12 accessing a computer program;

13 automatically identifying a set of one or more outputs of the computer program;

14 generating a list identifying the set of one or more outputs; and

15 outputting the list,

16 wherein the identifying and generating are performed based on an analysis of
17 computer program code, independent of execution of the computer program to provide
18 one or more views.
19

20 15. (Original) A method as recited in claim 14, further comprising:

21 automatically identifying a set of one or more attributes of the computer program
22 with values that are to be input to the computer program by a user; and

23 outputting an identification of the set of one or more attributes.
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25 16. (Canceled)

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2 17. (Previously presented) A method as recited in claim 14, further comprising
3 creating one or more forms including selected ones of the set of one or more outputs.
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5 18. (Original) A method as recited in claim 14, wherein the computer program
6 includes a plurality of interactions that each include one or more view definitions,
7 wherein each view definition defines a view that is a response to a request; and

8 wherein the automatically identifying comprises,

9 identifying, for each of the view definitions of each of the plurality of
10 interactions, the methods of the view definition,

11 identifying, as one of the set of one or more outputs, each output included in one
12 of the identified methods.
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14 19. (Previously presented) A method as recited in claim 14, wherein the computer
15 program includes a plurality of interactions that each include one or more command
16 definitions and one or more view definitions, wherein each command definition defines a
17 command having various attributes and a behavior, wherein each view definition defines
18 a view that is a response to a request, wherein the method further comprises creating a
19 form for each of the plurality of interactions, and wherein each form includes one or more
20 outputs for the corresponding one of the plurality of interactions.
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22 20-29. (Canceled)
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1 30. (Previously presented) One or more computer-readable media comprising
2 computer-executable instructions that, when executed, direct a processor to generate a
3 plurality of input forms and output forms for a computer program by:

4 accessing the computer program to identify operations in the computer program
5 that load attribute values and set attribute values;

6 analyzing the identified operations to determine one or more user inputs to the
7 computer program;

8 automatically generating code for one or more input forms to allow a user to input
9 at least some of the one or more user inputs;

10 accessing the computer program to identify one or more outputs of the computer
11 program; and

12 automatically generating code for one or more output forms to present the outputs
13 of the computer program.

14
15 31. (Original) One or more computer-readable media as recited in claim 30,
16 wherein the computer-executable instructions further direct the processor to:

17 generate a list identifying the one or more user inputs to the computer program
18 and another list identifying the one or more outputs of the computer program; and

19 output the lists.

20
21 32. (Original) One or more computer-readable media as recited in claim 30,
22 wherein generating the one or more input forms comprises generating a form definition
23 for each form by:

24 identifying the selected one or more user inputs to include on the form;
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1 creating data input fields for the form definition via which a user can
2 subsequently input a value for the user inputs; and

3 creating a submit tag for the form definition via which the user can subsequently
4 input a request to submit the values on the form to the computer program.

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6 33. (Previously presented) One or more computer-readable media as recited in
7 claim 30, wherein the computer program includes a plurality of interactions that each
8 include one or more command definitions and one or more view definitions, wherein
9 each command definition defines a command having various attributes and a behavior,
10 and wherein each view definition defines a view that is a response to a request; and

11 wherein accessing the computer program to identify operations in the computer
12 program that load attribute values and set attribute values, and analyzing the identified
13 operations, comprises,

14 identifying, for each of the command definitions of each of the plurality of
15 interactions, the methods of the command definition,

16 checking, for each identified method that sets a value, whether a corresponding
17 identified method obtains the value, and

18 identifying, as one of the one or more user inputs, each attribute corresponding to
19 a method that sets a value for the attribute for which there is no corresponding identified
20 method that obtains the value for the attribute.

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22 34. (Original) One or more computer-readable media as recited in claim 30,
23 wherein the computer-executable instructions further direct the processor to identify one
24 or more attributes of the computer program that are not obtained by the computer
25 program from elsewhere and that cannot be user inputs.

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2 35-36. (Canceled).
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4 37. (New) A method as recited in claim 1, wherein the creating is performed in a
5 form generation procedure in which said one or more forms are developed, the form
6 generation procedure being independent and antecedent to a user's interaction with the
7 computer program via said one or more forms.
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9 38. (New) One or more computer-readable media as recited in claim 30, wherein
10 the automatically generating code for said one or more input forms and the automatically
11 generating code for said one or more output forms are performed in a form generation
12 procedure in which said one or more input forms and said one or more output forms are
13 developed, the form generation procedure being independent and antecedent to a user's
14 interaction with the computer program via said one or more input forms and said one or
15 more output forms.
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